

**Bonneville Power AdministrationPower Administration
Fish and Wildlife Program FY99 Proposal Form**

**Enhance and Protect Imperiled Native Fish Species
Through Improved Education and Public Information**

Bonneville project number, if an ongoing project 9041

Business name of agency, institution or organization requesting funding
Montana Department of Fish, Wildlife and Parks

Business acronym (if appropriate) MFWP

Proposal contact person or principal investigator:

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Subcontractors.

Organization	Mailing Address	City, ST Zip	Contact Name
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NPPC Program Measure Number(s) which this project addresses.

- * Program Measure 10.1 defines the program for resident fish. Goals include Aemphasizing the long term sustainability of native fish in native habitats when possible...we can only protect and enhance the ecosystem that remains...≡
- * Program Measure 10.1A defines principles as promoting Acomprehensive and corporate watershed management; ecosystem diversity; productivity and stability...; to conserve the natural genetic diversity within native resident fish species, subspecies and unique stocks...≡
- * Program Measure 10.1B defines priorities for resident fish programs. It directs managers to Aaccord highest priority to rebuilding sustainable levels weak, but recoverable, native populations injured by the hydropower system...≡
- * Program Measure 10.3.13 directs habitat improvement projects in the implementation plan to be consistent with the maintenance of the genetic integrity

of native fish and protection of species that are endangered, threatened or of special concern.

NMFS Biological Opinion Number(s) which this project addresses.

Bull Trout Proposed Endangered Species Listing (62 FR 32268)

Westslope Cutthroat Recovery Act

NMFS hydrosystem operations for salmon recovery

Other planning document references.

Planning Documents:

Montana Bull Trout Restoration Plan (Montana Bull Trout Restoration Team 1997)

Montana Westslope Cutthroat Trout Restoration Plan (Montana Westslope Cutthroat Restoration Team, In preparation)

Fish Passage and Habitat Improvement in the Upper Flathead River Basin (Knotek et al. 1997)

Support Documents

Flathead Basin Commission Biennial report (1995-96)

Bull Trout Status Reports (Montana Bull Trout Scientific Group 1995)

Increased levels of harvest and habitat law enforcement and public awareness for Anadromous Salmonids and resident fish in the Columbia River Basin (1992-94) (Bonneville Power Administration 1995)

Angler=s Ability to Identify Bull Trout and Other Salmonid Species Found in Northwest Montana (Montana Fish, Wildlife and Parks 1995)

Analysis of Management Issues, Public Opinion and Performance Framework to Assist in the Development of a Draft Fisheries Enforcement Management Plan for Region 2, West-Central Montana (Vigg 1997)

Region One Public Information Plan Evaluation, Fisheries Management Study (MFWP 1996)

Subbasin. List subbasin(s) where work is performed.

Kootenai, Stillwater, Bob Marshall, Flathead, Swan drainages, > 50 subbasins

Short description. Describe the project in a short phrase (less than 250 characters).

Provide educational and informational services to the public on issues relating to enhancement of bull trout, cutthroat trout, sturgeon, red band rainbow and other imperiled fisheries, and their corresponding habitats. Combat traditional misinformation while developing and promoting the concept of sound and practical species management. Develop and distribute information regarding topics such as catch and release methods, fish identification, and the preservation of water quality. Educate and involve local communities in supporting the preservation, conservation and restoration of wildlife and habitat. Develop informational materials to promote and sustain long term interest in conservation, restoration and preservation efforts. Coordinate community and volunteer activities in habitat rehabilitation and promoting conservation efforts. Develop informational materials to promote interest and raise awareness by focusing attention on issues related to the conservation and restoration of habitat and biological resources that support this effort.

Section 2. Key words

Mark	Programmatic Categories	Mark	Activities	Mark	Project Types
	Anadromous fish		Construction	+	Watershed
X	Resident fish		O & M	+	Biodiversity/genetics
+	Wildlife		Production	+	Population dynamics
	Oceans/estuaries	+	Research	+	Ecosystems
	Climate	+	Monitoring/eval.		Flow/survival
	Other	X	Resource mgmt	+	Fish disease
			Planning/admin.		Supplementation
			Enforcement	X	Wildlife habitat en-
			Acquisitions		hancement/restoration

Other keywords.

Education, fish identification, public information, awareness

Section 3. Relationships to other Bonneville projects

Project #	Project title/description	Nature of relationship
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Because of the nature of information and educational programs, the success of this project will depend greatly on the many other projects being funded. Conversely, those same projects will benefit from having an educated and informed public to assist them in reaching the goal of protecting imperiled fish stocks.

Section 4. Objectives, tasks and schedules

Objectives and tasks

Obj 1,2,3	Objective	Task a,b,c	Task
1	Provide for protection and enhancement of bull trout, cutthroat trout, Kootenai white sturgeon, red band rainbow and other imperiled native resident fishes, via increased education and public involvement.	a	Increase public awareness of native resident fish species by educating user groups (e.g., sport fishermen, outfitters, guides, recreationists) and non-sporting groups (e.g., timber managers, ranchers, irrigators) as to the critical role they will play in comprehensive recovery plans for resident native fish.
		b	Educate the public on issues related to restoration of imperiled fish stocks in Montana. Provide information in a variety of formats, such as brochures, public presentations, signs, news releases, press conferences, radio and television spots.
		c	Educate anglers and recreationists on identification of target species in Western Montana. Evaluate effectiveness and adaptively manage the Fish ID effort presently being conducted.
		d	Coordinate efforts between fish managers, public information officers, biologists and fish and game wardens in development and distribution of materials for public information and education.
		e	Develop methods to enhance public involvement in native fish preservation and restoration, e.g., toll free fish violator hotlines and volunteer programs.
		f	Develop criteria and methods to evaluate the effectiveness of public awareness programs. Assess public willingness to

			comply with rules and regulations for protecting imperiled fish stocks and their critical habitat in the Columbia basin.
2	Optimize annual and long term efficacy of efforts through the development of annual operational plans for Montana fisheries education and protection of critical habitat. These plans will complement the goals and objectives of Restoration Teams, MFWP fisheries managers, tribal and federal fish management entities, the public and pertinent regulatory agencies, within the framework of a comprehensive Recovery Plan for Montana.	a	Coordinate with fish managers, fish and wildlife biologists, and policy makers within MFWP and other pertinent state agencies to identify and prioritize education activities in Montana. Efforts will complement and maximize the efficiency of state-wide and regional-level management goals relative to the protection and enhancement of native resident fish stocks and their critical habitats.
		b	Coordinate with Helena and regional fish managers for planning within the Columbia Basin that will compliment and maximize efficiency of management goals relative to the ESA and protection/enhancement of native resident fish stocks and their critical habitats.
3	Develop performance standards and specific criteria to objectively measure achievement.	a	Develop criteria for evaluating performance of specific objectives included in the education program. Improvements in public awareness and participation, enhancement of voluntary compliance, decreases in mistaken take of native resident fish stocks, increased survival of spawners, juvenile fish protection and protection of fishes= critical habitat in western Montana.
		b	Annually evaluate performance in terms of how education efforts resulted in accomplishment of specified performance objectives according to predetermined

			criteria i.e., did the education program actions accomplish the desired results?
		c	Collect and summarize education statistics using a consistent scientifically valid methodology. Document the results of the program through annual reports to pertinent agencies.

Objective schedules and costs

Objective #	Start Date mm/yyyy	End Date mm/yyyy	Cost %
1a	3/99	NA - Ongoing	8%
1b	1/99	12/01	14%
1c	1/99	12/99	11%
1d	1/99	12/01	4%
1e	1/99	NA - Ongoing	5%
1f	1/99	12/99	6%
2a	1/99	12/99	9%
2b	1/99	NA - Ongoing	11%
3a	1/99	12/99	7%
3b	1/99	12/99	10%
3c	1/99	12/99	15%

Schedule constraints. Identify any constraints that may cause schedule changes.

None

Completion date.

Although ongoing and proposed projects in the objectives could be completed by 2002, the program is intended to be perpetual. Because of the nature of the information and education focus, we will constantly conduct assessments and monitor outcomes to allow evaluation and planning of new projects within the overall program.

Section 5. Budget

FY99 budget by line item

Item	Note	FY99
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9041 Enhance and Protect Imperiled Native Fish Species Through Improved Education and Public Information

Personnel	Educational Resource Specialist	\$24,998
Fringe benefits		\$7931
Supplies, materials, non-expendable property	Brochures, signs, education and information materials	\$12,097
Operations & maintenance	Vehicle maintenance, operations	\$10,800
Capital acquisitions or improvements (e.g. land, buildings, major equip.)		
PIT tags	# of tags:	
Travel	per diem, lodging and commercial airfare	\$4,027
Indirect costs	17.1% overhead	\$10,685
Subcontracts	work study to conduct survey	\$3,000
Other		
TOTAL		\$73,538

Outyear costs

Outyear costs	FY2000	FY01	FY02	FY03
Total budget	\$79936	\$79936	\$79936	\$79936
O&M as % of total	13%	13%	13%	13%

Section 6. Abstract

Fish managers are increasingly utilizing innovative strategies for preserving and restoring native resident fish populations. These new strategies often conflict with angler misconceptions. To create public support for native fish programs, agencies and fish conservation groups must undertake broad based education efforts. To teach effectively about imperiled fish populations, all types of education and communication need to be used. Awareness of these populations must be raised among anglers and the general public. This education and information effort will also facilitate the exchange of technical information concerning the biology and management of imperiled fish stocks between public information officers, fish managers, biologists, and law enforcement personnel.

Projects will include working with traditional resource users and non users, as to the critical role they play in comprehensive recovery for resident native fish. Monitoring will include pre- and post- educational surveys, using a consistent scientifically valid methodology. Documentation of the results of the program will occur through annual reports to BPA and other appropriate entities.

Section 7. Project description

a. Technical and/or scientific background.

In 1991, the *Fisheries Mitigation Plan for Losses Attributable to the Construction and Operation of Hungry Horse Dam* (Mitigation Plan) was prepared by the Montana Fish, Wildlife and Parks (MFWP) and the Confederated Salish and Kootenai Tribes (CSKT) (MFWP and CSKT 1991). This plan provided the Northwest Power Planning Council (NPPC) with documentation of fisheries and habitat losses associated with construction and operation of Hungry Horse Dam (HHD) and a flexible strategy to mitigate for these losses.

The *Montana Bull Trout Restoration Plan* (Montana Bull Trout Restoration Team 1997) and the *Montana Westslope Cutthroat Trout Restoration Plan* (Montana Westslope Cutthroat Restoration Team Draft) recommend increased levels of education and information to resource users and non users. Mistaken identification of native species, introduction of non native species, illegal harvest and habitat degradation are rated as high risk activities to native fish species. Both teams recommend broad based educational efforts.

The *Hungry Horse Dam Fisheries Mitigation Implementation Plan* (implementation Plan) was subsequently developed by MFWP and CSKT, adopted by the NPPC in 1993, and funded by the Bonneville Power Administration (BPA). The implementation Plan (MFWP and CSKT 1993) describes specific, non-operational measures (activities that do not effect dam operation) to protect and enhance resident fish and aquatic habitat affected by HHD.

Vigg (1995) suggests in *Increased levels of harvest and habitat law enforcement for anadromous salmonids and resident fish in the Columbia river basin* implementation of a number of Information and Education strategies concerning resident fish, and the plight of specific populations that are in danger of extinction and the importance to society of conserving the values and diversity of Montana=s resident fishes for future generations. Some methods mentioned are: issuing fish identification cards, fair displays, school programs, media contact, angler education classes; and to enhance this increased effort by promoting cooperation and assistance from appropriate federal, state, tribal and local entities.

The *public Information Plan Evaluation Fisheries Management Study* (Dolson and Lanry, 1996) showed that angler dissatisfaction with how FWP manages mitigation programs increased by 5%, while satisfaction decreased by the same amount. This is a statistically significant relationship (@ $p < 0.05$) and merits concern.

For the past three years, MFWP has conducted an *Angler Ability to Identify Salmonids* survey. The results of this survey show that anglers are consistently unable to identify salmonid species found in Northwest Montana, and that anglers are often unaware of

ongoing efforts for protection of imperiled fish stocks and ongoing restoration plans.

b. Proposal objectives

Increase public awareness of native resident fish species by educating use groups (e.g., sport fishermen, outfitters, guides and recreationists and non-sporting groups (e.g., timber managers, ranchers, property owners) about the critical role they will play in comprehensive recovery plans for resident native fish.

Educate the public on issues related to restoration of imperiled fish stocks in Montana by providing information in a variety of formats, such as brochures, public presentations, signs, news releases, press conferences, radio and television spots.

Educate anglers and recreationists on the identification of target species in Western Montana. Evaluate effectiveness and adaptively manage the fish identification effort presently being conducted.

Coordinate efforts between fish managers, public information officers, biologists and wardens in the development and distribution of materials for public information and education.

Develop methods to enhance public involvement in native fish preservation and restoration, e.g., volunteer programs.

Develop criteria and methods to evaluate the effectiveness of public awareness. Assess public willingness to comply with rules and regulations for protecting imperiled fish stocks and their critical habitat in the Columbia Basin.

Coordinate with fish managers, fish and wildlife biologists, and policy makers within MFWP and other pertinent agencies to identify and prioritize education activities in Montana. Efforts will complement and maximize the efficiency of state wide and regional level management goals relative to the protection and enhancement of native resident fish stocks and their critical habitats.

Coordinate with Helena and regional fish managers for planning within the Columbia Basin that will complement and maximize efficiency of management goals relative to the ESA and the protection/enhancement of native resident fish stocks and their critical habitats.

Develop criteria for evaluating performance of selective objectives included in the education program. Improved public awareness and participation, enhancement of voluntary compliance, decreases in mistaken take of native resident fish stocks, increased survival of spawners, juvenile fish protection and protection of fishes= critical habitat in western Montana.

Annually evaluate performance in terms of how education efforts resulted in accomplishment of specified performance objectives according to the predetermined criteria i.e. did the education program actions accomplish the desired results?

Collect and summarize education statistics using a consistent scientifically valid methodology. Document the results of the program through BPA, MFWP and other pertinent entities.

c. Rationale and significance to Regional Programs.

A comprehensive information and education will benefit FWP objectives, measures and other plans. Program Measure 10.1B defines priorities for resident fish programs. It directs managers to accord highest priority to rebuilding sustainable levels weak, but recoverable, native populations injured by the hydropower system...≡.

This I&E effort will enhance all regional programs by promoting cooperation and assistance from resource users (e.g., anglers, recreationists, guides and outfitters) and non-users (e.g., ranchers, irrigators, property owners). By educating the public on the plight of specific populations that are in danger of extinction and the importance to society of conserving the values and diversity of the Northwest's resident fishes for future generations, all proposed efforts for protection and recovery will benefit. A well informed and committed public is the determining factor in the success of all programs.

d. Project history

NA-This is a new project.

e. Methods.

Objective 1.

Task 1a-f. Inform and educate the public (both user and non-user groups) by implementing a broad based effort as to the critical role they play in comprehensive recovery plans for resident native fish. This would include speaking on pertinent issues to school groups, timber expositions, guide training seminars, town meetings, and other opportunities. Distribute information in a variety of formats, such as brochures, news releases, radio and television spots.

Educate anglers and recreationist on identification of target species in Western Montana. This has been an ongoing MFWP effort. This effort and methods are summarized in *Angler's Ability to Identify Bull Trout and Other Salmonids Species Found in Northwest Montana*. 1996. Kelly, Jones and Whalen. MFWP, Kalispell, MT.

Coordinate efforts between fish managers, public information officers, biologists and fish and game wardens through monthly organizational meetings. Because of the nature of information and education, input from these meetings will allow constant

assessments and allow monitoring and evaluation of the public's perception of projects and issues within the overall program.

Task 2a-b. Optimize annual and long term efficacy of efforts through the development of annual operational plans for Montana fishers education and protection of critical habitat. These plans will complement the goals and objectives of Restoration Teams, MFWP managers, tribal and federal entities, the public and pertinent regulatory agencies within the framework of a comprehensive Recovery Plan for Montana. Coordinate seasonally with policy makers within MFWP and other pertinent state agencies to identify and prioritize educational activities. Efforts will complement and maximize the efficiency of state wide and regional level management goals relative to the protection and enhancement of native resident fish stocks and their critical habitats.

Task 3a-c. Develop criteria for evaluating performance of specific objectives included in the educational program. Annually evaluate performance of how education efforts resulted in accomplishment of specified performance objectives according to the predetermined criteria i.e., did the education program actions accomplish the desired results?

f. Facilities and equipment.

All offices, equipment, and facilities are located at the MFWP regional headquarters in Kalispell, Montana. This 5 acre complex, built in 1990, houses more than 55 MFWP employees. Facilities include mounted fish boards, cameras, project vehicles from the FWP motor pool, television, VCRs and other specialized equipment when needed for projects.

g. References.

Dolsen, D.E. and M.K. Landry. 1996 Public Information plan evaluation fisheries management study. A comparison of pre and post test survey results. Helena, MT. Montana Fish, Wildlife and Parks.

Fraley, J., Weaver, T., and J. Vashro. 1989. Cumulative effects of human activities on bull trout in the upper Flathead drainage, Montana. Headwaters Hydrology. June, 1989.

Kelly, E.J., Jones, S. and S. Whalen. 1996. Anglers Ability to Identify Bull Trout and Other Salmonid Species Found in Northwest Montana. Montana Fish, Wildlife and Parks. Kalispell, MT.

Long, M. And A. Rahmlow, A. 1995. Anglers Ability to identify bull trout and other Montana salmonid species. Missoula, MT. Montana Department of Fish, Wildlife and Parks.

Thomas, G. 1992. Status report: Bull trout in Montana. Helena MT: Dept. Of Fish, Wildlife and Parks.

Vigg, S. 1997. Analysis of Management Issues, Public Opinion and Performance Framework to Assist in the Development of a Draft Fisheries Enforcement Management Plan for Region 2, West-Central Montana. Prepared for: The Montana Department of Fish, Wildlife and Parks Law enforcement Division, Missoula, Montana. February 14, 1997. S.P. Cramer & Associates, Inc., Fisheries Consultants, 300 S.E. Arrow reek Lane, Gresham, Oregon.

Vigg, S. (Editor). 1995. Increased levels of harvest and habitat law enforcement and public awareness for Anadromous Salmonids and resident fish in the Columbia River Basin, Project 92-024 Final Report for the demonstration period, 1992-94. June 31, 1995. Bonneville Power Administration, Portland, Oregon.

Section 8. Relationships to other projects

Because of the nature of Information and Education projects, this program will greatly enhance the success of many other Bonneville projects. Because the public is a key component in the success of any efforts to enhance and protect resident depleted fish stocks, it is important they are included in the transfer of information relating to the specific resource.

Rather than specifying any particular project that a comprehensive I&E effort will benefit, realize that by educating and maintaining an informed public is one of the best ways to ensure cooperation with present and future projects.

Section 9. Key personnel

JOHN FRALEY
Public Information Officer
Montana Fish, Wildlife and Parks

Duties: Oversees all MFWP sponsored I&E activities in the Region One area of Northwest Montana. Directly supervises principle investigator.

ED KELLY
Warden Captain Region One
Montana Fish, Wildlife and Parks

Duties: Oversees all MFWP law enforcement activities. Supervises fish identification surveys.

H.M. PIER
Principal Investigator and Education Resource Specialist
Montana Fish, Wildlife and Parks

Duties: Manages daily operations of the project including project prioritization, implementation, education, supervision of work study and scheduling.

Resume

B.S. in Biology-Fisheries/Environment Emphasis

University of Montana

Honors: Academic Award/Scholarship, Sowerwine Biology Award, AAUW Award/Scholarship, Biology Award, Phi Theta Kappa

RELEVANT EXPERIENCE

- * Montana Department of Fish, Wildlife and Parks, Kalispell
1997-98 Supervisor: Ed Kelly, John Fraley
Developed fish i.d and education program. Distributed information regarding imperiled fish stocks in the form of brochures, signs. Supervised work study in collection of 1997 survey material. Analyzed data, and published survey report.
- * Montana Department of Fish, Wildlife and Parks, Missoula
1997 Supervisor: Mack Long and Bill Thomas
Developed educational program for bull trout, dealing with history, biology and current issues. Presented program to 1600 people.
- * Montana Department of Fish, Wildlife and Parks, Kalispell
1994-97 Supervisors: Jim Vashro, John Fraley
Provided several services to Department: education, information, creel clerk, fisheries technician
- * Montana Department of Fish, Wildlife and Parks
1992-95 Supervisor: John Fraley
Developed wildlife education series. Provided educational activities to groups.

Section 10. Information/technology transfer

Information will be returned in disk form to relevant agencies.